

TOWN OF WINDSOR
STORMWATER MANAGEMENT PLAN



2010 Annual Report

December 23, 2010

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1.0 EXECUTIVE SUMMARY

In 2004, the Town of Windsor prepared a five-year Phase II Stormwater Management Plan (SWMP) as required by the Connecticut Department of Environmental Protection's General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit). This document constitutes the Town's Annual Report for 2010 and summarizes the activities conducted to satisfy the permit requirements, modifications to the SWMP, and activities scheduled for the upcoming year, 2011.

2.0 PUBLIC EDUCATION AND OUTREACH

2.1 Catch Basin Markers

To date, more than 700 catch basin markers have been marked with a placard stating "Drains to Waterways and the Long Island Sound, No Dumping!" These markers warn people that discharging harmful contaminants into a catch basin has a negative impact on the local wetlands and waterways as well as the Long Island Sound. Additionally, residents received an educational flyer explaining the purpose of the catch basin markers installed in their neighborhood.

2.2 Educational Materials Distributed

Copies of the SWMP are available for public review at the Windsor Main Library, the Wilson Branch Library, and the Town Clerk's Office. The Town's website also contains a stormwater page which includes links to a copy of the SWMP and annual reports. A variety of other media outlets were also used to provide stormwater management information to Windsor residents over the past year. Feature articles and photos were published in local newspapers regarding Earth Day and Connecticut River community clean-up efforts. These newspapers include the *Hartford Courant*, *Windsor Journal*, and *Reminder News*. Promotional information on these events as well as other stormwater management educational information was also broadcast on Windsor's Government Access Television Channel, WGTV.

In addition, the Town of Windsor publication, *There's a lot to do in Windsor*, included public relations information for the catch basin marking program which included a request for volunteers to assist with the program. Additionally, other tips to residents regarding the discharge of pool wastewater

and summer “green” tips were included in the publication throughout the year. Household Hazardous Waste Day, Earth Day, and Connecticut River Clean-up programs were also publicized in the magazine to educate all citizens. Copies of these publications are included in Appendix A. This town magazine, published three times per year, is mailed to every household and business in Windsor for a total distribution of 12,500.

In March 2010, the Town published a car wash brochure to educate fundraising groups about how to conduct a proper car wash event. A copy of this brochure is also included in Appendix A.

2.3 Citizen Groups

Various local citizen groups and organizations have assisted the Town in developing partnerships with the public and increasing stormwater awareness. These groups include ING Community Service Volunteers, The Hartford, Cigna, and Four Seasons Landscaping (a local company). These groups continue to provide and/or have the capacity to provide public education resources on stormwater quality issues and continue to exist as support for future stormwater education programs in Windsor.

2.4 School Programs

This year a number of educational activities have been conducted with Windsor students. A recycling lesson was given to the sixth grade students at Sage Park Middle School and to third grade students at Oliver Ellsworth Elementary School by the Town Environmental Planner.

Town staff has also partnered with several Environmental Science classes at Loomis Chaffee School as the students study waste reduction and recycling. The students were tasked to survey residents on their recycling habits and raise awareness of recycling. At the final red carpet event entitled, “Lights, Camera, Recycle!”, the students shared their work with faculty, town and state officials and the community – including two video PSAs that are being aired on local access television and Windsor’s website at no cost to the town.

Furthermore, Northwest Park continues to offer environmental education in classes for students, public programs, special events and also nature camp during the summer. Solar energy, winter ecology, cycle of life, plants and soils, pond study, geology of Connecticut, insects, mammals, vernal pools, birds of prey and the utilization of the STARLAB planetarium are some of the many programs offered. These programs focus on engaging the children and participants in hands on experiences to promote environmental stewardship.

2.5 Activities Scheduled for Next Year

Activities planned for next year include:

- Install additional catch basin markers throughout Town.
- Expand educational resources.
- Solicit assistance from various citizen groups to help with education and outreach.
- Continued participating in school programs.

3.0 PUBLIC PARTICIPATION

3.1 Community Clean-Ups

The Town Environmental Planner conducted two (2) community clean-ups in 2010. More than one hundred (100) volunteers participated in the two clean-up events. The first event was conducted on April 23, 2010 and focused on collecting trash located along major roads throughout Town. Approximately 3 tons of trash, including tires and scrap metal, was collected in the April 2010 event. The second clean-up was conducted on October 2, 2010 and focused on cleaning the banks of the Connecticut River. Approximately 600 pounds of trash was collected at the October 2010 event.

3.2 School Programs

Students in Windsor public schools are encouraged to volunteer in environmental activities over the summer vacation, in addition to after-school activities. Some of these ongoing programs include:

- Recycling programs
- Earth Day celebrations

- Community clean-up events
- Science fairs

The Loomis Chaffee student project described in Section 2.4 is an example of the type of programs conducted within the schools.

3.3 Stormwater Management Committee

In 2004 the Town established a Stormwater Management Committee to develop and implement the SWMP. Since that time, new members have joined the Committee. The Committee consists of the following Town employees:

- Thomas Lenchan, Town Engineer
- Victoria Houle, Project Engineer
- Cyd Groff, Environmental Planner
- Lauren Good, Assistant Town Planner
- Brian Funk, Public Works Director
- Enita Jubrey, Public Relations, Assistant to the Town Manager
- Charles Petrillo, Director of Health Services
- Michael Pepe, Health Services
- Lauri Volkert, Fire Inspector

3.4 Public Meetings

The SWMP and Phase II Stormwater Program were presented at a Conservation Commission meeting in January 2005. This meeting allowed the public to review and comment on the SWMP. This year's annual report and previous annual reports are made available to the public on the Town's website.

3.5 Activities Planned for Next Year

Activities planned for next year include:

- Conduct community clean-up events in spring and fall.

- Recruit student volunteers and/or interested citizens to assist in the illicit discharge detection and elimination efforts within the Phase II regulated areas.

4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

4.1 Outfall Mapping

In 2005, the Town completed the mapping of all stormwater outfalls of 12” or greater throughout town. The outfall maps include information on over 550 outfalls. The outfall maps include:

- Type, material, and size of the conveyance, outfall or channelized flow; and
- The name of the watershed in which the discharge is located.

In 2010 these maps were updated to include additional structures installed and/or upgraded since the original mapping. Additionally, the name and Surface Water Quality Classification of surface waterbodies and wetlands were also added to the maps.

The maps are available for review at Town Hall in the Engineering Department.

4.2 Illicit Discharge Detection Ordinance

An Illicit Discharges and Connections Ordinance was adopted by Town Council on April 6, 2009 and became effective on April 20, 2009. The objectives of the ordinance are:

- To regulate the contribution of pollutants to the MS4 by stormwater discharges by any user.
- To prohibit illicit connection and discharges to the MS4.
- To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with the ordinance.

The Town is also in the process of developing and implementing a plan to detect and address future non-stormwater discharges, including illegal dumping, to the MS4. Initially, the Town will evaluate the possibility of combining dry weather screening with the existing mosquito-control program conducted throughout Town during the summer months.

4.3 Activities Planned for Next Year

Activities planned for next year include:

- Update outfall mapping to include new outfall locations.
- Develop and implement a plan to detect and address future non-stormwater discharges, including illegal dumping, to the MS4.
- Train employees to help them identify illicit discharges and properly report and address such discharges.

5.0 CONSTRUCTION SITE RUNOFF CONTROL

5.1 Erosion and Sediment Control Ordinance

An ordinance on Erosion and Sediment Control was adopted by Town Council and became effective on February 2, 2009. The objectives of this ordinance are to safeguard persons, protect property, and prevent damage to the environment in the Town of Windsor by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that involves land disturbing activities of greater than 0.5-acre. The ordinance formalizes the previous Town staff review of erosion and sediment control measures by requiring an Erosion & Sediment Control Permit to be required for all sites disturbing greater than 0.5-acre. Approval of this permit must be received prior to the commencement of any land disturbing activity.

In addition to the Erosion & Sediment Control Ordinance, a Stormwater Manual was developed and became effective on February 4, 2009 to provide guidance on the requirements of an Erosion & Sediment Control Permit application as well as preferred appropriate erosion and sediment control measures and the design parameters for each type of erosion and sediment control measures.

In 2010, there were nine (9) Erosion & Sediment Control Permits received and reviewed by Engineering. Of these, three (3) included the land disturbance of greater than 5 acres and thus registration with the DEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities was required as a condition of approval.

5.2 Development Reviews

Approximately thirty-one (31) applications for new development or redevelopment projects town-wide were reviewed and approved in 2010. Twenty-one (21) of these applications were site plan revisions and reviewed by Town staff, the remaining ten (10) were reviewed by the Planning & Zoning Commission. Town staff reviews all proposed developments with respect to stormwater quality impacts. Erosion and sediment control plans are required to be submitted for all development applications greater than 0.5-acre. The Town's Zoning Regulations require the approval of an Erosion & Sediment Control Permit prior to the approval of the pending application. This practice will continue in following years.

5.3 Activities Planned for Next Year

Activities planned for next year include:

- Continue the review of development and redevelopment applications with respect to stormwater impacts and erosion and sediment control measures.

6.0 POST-CONSTRUCTION STORMWATER MANAGEMENT

6.1 Stormwater Management Ordinance

An ordinance on Stormwater Management was adopted by Town Council and became effective on February 2, 2009. The objectives of this ordinance are to:

- Establish decision-making processes surrounding land development activities that protect the integrity of the watershed and preserve the health of water resources;
- Require that new development and redevelopment maintain the pre-development hydrologic response in their post-development state as nearly as practicable in order to reduce flooding, streambank erosion, non-point source pollution and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;
- Establish minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;

- Establish design and application criteria for the construction and use of structural stormwater control facilities that can be used to meet the minimum post-development stormwater management standards;
- Encourage the use of non-structural stormwater management and stormwater best site design practices, such as the preservation of greenspace and other conservation areas, to the maximum extent practicable, coordinate site design plans, which include greenspace, with the Town’s Open Space and Agricultural Preservation Plans;
- Establish provisions for the long-term responsibility for and maintenance of structural stormwater control facilities and non-structural stormwater management practices to ensure that they continue to function as designed, are maintained, and pose no threat to public safety; and
- Establish administrative procedures for the submission, review, approval and disapproval of stormwater management plans, for the inspection of approved active projects, and for long-term follow-up.

The ordinance formalizes the previous Town staff review of stormwater management by requiring a Stormwater Management Permit for all sites creating greater than 5,000 SF of impervious area or that involves other land development activities of 1.0 acre or more. Approval of this permit must be received prior to the commencement of any land disturbing activity. The main requirements of a Stormwater Management Permit are:

1. To demonstrate compliance with the established post-development performance criteria.
2. To execute an Inspection & Maintenance Agreement which identifies the person(s) responsible for inspection and maintenance as well as a schedule for routine inspection and maintenance to ensure proper function of all stormwater management facilities and/or practices. The Inspection and Maintenance Agreement must be recorded in the Land Records maintained by the Windsor Town Clerk.

Additionally, applicants required to obtain a Stormwater Management Permit are also required to conduct inspections of the post-development stormwater management systems throughout construction and to submit “as-built” plans of the system after final inspection by the Town Engineer.

The Town Stormwater Manual provides guidance on the requirements of a Stormwater Management Permit as well as the post-development stormwater management performance criteria applicable to all stormwater management plans.

In 2010, nine (9) Stormwater Management Permit Applications were reviewed. To date, there have been four (4) post-construction Inspection & Maintenance Agreements in accordance with the Town's Stormwater Management Ordinance recorded on land records.

6.2 Development Reviews

Approximately thirty-one (31) applications for new development or redevelopment projects town-wide were reviewed and approved in 2010. Twenty-one (21) of these applications were site plan revisions and reviewed by Town staff, the remaining ten (10) were reviewed by the Planning & Zoning Commission. Town staff reviews all proposed developments with respect to stormwater quality impacts and proposed stormwater management. The Town's Zoning Regulations require the approval of a Stormwater Management Permit prior to the approval of the pending application. This practice will continue in following years.

6.3 Best Management Practices

The Town of Windsor currently utilizes guidance from the 2004 Connecticut Stormwater Quality Manual for evaluating and selecting both structural and non-structural stormwater management measures. The Town's Stormwater Manual includes the specifications and standards for post-construction stormwater management. It is the Town's intention to expand the Stormwater Manual to include a list of best management practices preferred by the Town for use by developers, citizens, and staff.

6.4 Activities Planned for Next Year

Activities planned for next year include:

- Continue the review of development and redevelopment applications with respect to proposed post-construction stormwater management design.

- Expand the Town's Stormwater Manual to include Windsor-preferred best management practices.

7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING

7.1 Employee Training

Approximately 25 Department of Public Works (DPW) staff (representing administrative and highway staff) received environmental-related training this year. The training included Chemical Hazard and Emergency Response and Right to Know training.

Stormwater training for DPW and other Town employees was conducted in December 2010. The training was conducted in conjunction with annual training required by the CT DEP's Industrial Stormwater Permit for the highway garage and parks garage. The training included education on goals and objectives of the Phase II program, pollution prevention for public works activities, waste management, and good housekeeping. A copy of the training handouts and employee attendance log is included in Appendix B.

7.2 Street Sweeping

All Town-owned roadways and parking areas were swept at least once during this year. Visual inspections and historical knowledge of roadways are used to identify streets within Town that require sweeping more than once per year. In addition, the use of sand during snow and ice removal activities in the winter was significantly reduced. This resulted in reduced quantities of sand being swept up during spring street sweeping and will have an ongoing impact on the amount of material requiring removal during catch basin cleaning.

7.3 Catch Basin Cleaning

The Town continued its efforts to clean Town-owned catch basins. In 2010, approximately 1500 catch basins were cleaned. The Town's current catch basin cleaning schedule is designed so that each catch basin is cleaned at least once during a three-year period. A program is being developed by Public Works staff and the Health Department to evaluate catch basins and other stormwater

structures that accumulate sediment at least once per year, including a provision to identify and prioritize those structures that may require cleaning more than once a year.

7.4 Preventative Maintenance

Routine preventative maintenance is performed at the highway garage on the Town's fleet of equipment and vehicles.

7.5 Windsor-Bloomfield Landfill

The Windsor-Bloomfield Landfill accepts household trash, recyclables, yard waste, waste motor oil, tires, appliances and bulky items such as furniture and mattresses. Approximately 12,000 tons of municipal solid waste was collected in 2010. Approximately 7,100 tons of demolition debris and 280 tons of scrap metal were collected. Over 900 tons of leaves and brush were composted. Furthermore, the 2010 MDC Household Hazardous Waste Collection Day included the collection of acids, aerosols, batteries (alkaline, lead-acid, lithium, and Ni-Cad), flammable liquids, fluorescent bulbs, mercury-containing items, pesticides, and PCB ballasts.

7.6 Activities Planned for Next Year

Activities planned for next year include:

- Continue providing environmental-related and stormwater management training to DPW and other Town staff.
- Continue sweeping Town-owned streets in spring after snowmelt.
- Continue cleaning catch basins.

8.0 STORMWATER QUALITY TESTING

The MS4 General Permit requires the Town to complete annual stormwater quality testing on six outfall locations which represent the overall nature of each respective land use type: industrial, commercial, and residential. Six outfall locations were selected in Windsor for stormwater quality testing in an attempt to cover different geographic locations, different watersheds, and different receiving waters.

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The following locations have been sampled annually since 2004 and were sampled in 2010:

- 800 Marshall Phelps Road (Industrial)
- 615 Day Hill Road (Industrial)
- 1075 Kennedy Road (Commercial)
- 555 Day Hill Road (Commercial)
- 124/128 Harvest Lane (Residential)
- 21-27 Philip Henry Circle (Residential)

The stormwater monitoring reports for 2010 testing are included in [Appendix C](#).

APPENDIX A

Educational Materials Distributed

Something New Happening In Your Neighborhood

Storm Drain Marking – Program to Benefit Long Island Sound

As part of continuing efforts to preserve to protect Long Island Sound, volunteers from local civic groups are needed to apply storm drain markers that read "Drains to Waterways and Long Island Sound, No Dumping" between June and September. This year the working area will be from Deerfield Road east to Sinclair St. and Valley View Road south to Midian Avenue. The markers serve as a reminder that what we do, even at inland locations in Connecticut impacts the water quality in Long Island Sound. Every drop of water that goes down the storm drain eventually finds its way, untreated into Long Island Sound. That's why it is very important to keep substances such as motor oils, soaps, fertilizers, litter, leaves, and pet waste, which can impair oxygen levels and impact beaches, from entering the storm drains. Do your part to improve water quality in Long Island Sound with these handy tips:

- * Clean up after your pets (it's a town ordinance)
- * Wash your car on your lawn
- * Leave grass clippings on your lawn
- * Prevent leaves and litter from entering the storm drain
- * Dispose of motor oil, paints, and other chemicals properly
- * Use gravel and crushed stone for home improvements
- * Include vegetated buffers in your landscaping plan.

If your group would like to participate in this community service project, contact the Windsor's Environmental Planner, Cyd Groff at 860-285-1987.

July 13: The Windsor Board of Ethics will meet tonight from 7:00 PM to adjournment in the Dr. Primus Room at Town Hall. Free. 860-285-1800.

July 15: Marvelous Musicals Summer movie series. Tonight's movie is *Sparkle*, starring Irene Cara and Philip M. Thomas. Doors open at 6:30 PM, the films start at 7:00 PM. Free. 860-285-1918.

July 15: The Windsor Republican Town Committee will meet tonight from 7:30 PM until adjournment in the Council Chambers at Town Hall. Free. 860-478-9894.

July 15: The Windsor Chamber of Commerce and First Town Downtown invite you to a **concert on the green** featuring *The Tirebiter Band*, performing songs from an eclectic artist list ranging from the 1960's to the 2000's, from 7:00 PM to 9:00 PM. Make it a special Thursday and enjoy dinner at one of Windsor's quaint restaurants, shop at the farmers' market and other Windsor shops. Free. 860-688-5165 or online at WindsorCC.org or firsttowndowntown.org.

July 20: This evening's "Timelines: Placing Your Heritage in Historical Perspective" will be held at Windsor Historical Society with Laura Prescott from 7:00 PM to 9:00 PM. Match historical events to an ancestor's life, or synchronize one ancestor's life events to another's using genealogical software as well as everyday software programs to create a graphic profile and timeline. This is part three of a four part genealogy series offered at the Society. The Society's Research Library will be open at 6:00 PM for program attendees looking to do research beforehand. \$15.00 per

person or \$50.00 for the series. 860-688-3813 or windsorhistoricalsociety.org.

July 21: The Windsor Economic Development Commission will meet today from noon until adjournment in the Ludlow Room at Town Hall. Free. 860-285-1877.

July 21: Computer Class/Intermediate Excel training will be held at the Windsor Public Library today from 7:00 PM to 8:30 PM. Some experience with Microsoft Excel is necessary. Space is limited and registration is required. Free. 860-285-1918.

July 21: The Windsor Zoning Board of Appeals will meet today from 7:00 PM until adjournment in the Council Chambers at Town Hall. Free. 860-285-1960.

July 22: Marvelous Musicals Summer movie series. Tonight's movie is *Neptune's Daughter*, starring Esther Williams and Ricardo Montalban. Doors open at 6:30 PM, the films start at 7:00 PM. Free. 860-285-1918.

July 22: The Windsor Chamber of Commerce and First Town Downtown invite you to a **concert on the green** featuring *All-Star Dyn-o-Myte Disco Review*, the East Coast's hottest and most authentic "Flashback to the '70's band, from 7:00 PM to 9:00 PM. Make it a special Thursday and enjoy dinner at one of Windsor's quaint restaurants, shop at the farmers' market and other Windsor shops. Free.

860-688-5165 or online at WindsorCC.org or firsttowndowntown.org.

July 24: The Annual Old Fashioned Ice Cream Social, Arts, Crafts, Antiques and Collectibles Fair will be held on the beautiful grounds of the Oliver Ellsworth Homestead, 1778 Palisado Avenue from 9:00 AM to 4:00 PM. Browse a summer lawn party featuring canopies of gifts and collectibles. Visit Abigail's farm stand for local garden vegetables and baked goods. Stop for a hamburger or hot dog and top it off with the feature of the day: big scoops of ice cream topped with chocolate, strawberry or butterscotch sauce and dollops of whipped cream. And before you leave, be sure to take a guided tour of the Homestead. Admission is free and there is plenty of free parking. 860-688-8717.

July 26: Are you resolved to get a better job this year? Windsor Toastmasters will help you improve your interviewing skills. Come in from the fear and experience our friendly and relaxed educational environment. We meet from 7:00 PM to 8:30 PM at the L.P. Community Center. Free. 860-683-0404 or <http://windsor.freetoasthost.info/index.html>.

July 26: The Windsor Housing Authority will meet tonight from 7:00 PM until adjournment at Fitch Court, 156 Bloomfield Avenue. 860-285-8090.

July 27: "Ellis Island Online and On-Site: Finding Your Ellis Island Ancestors." This workshop at Windsor Historical Society tonight from 7:00 PM to 9:00 PM is an in-depth discussion of all the site features with a special emphasis on tips and tricks for finding those elusive immigrant arrivals. Once you understand how the data are structured, you'll find it easier to adapt your search strategies to match your situation. This is part four of a four part genealogy series offered at the Society. The Society's Research Library will be open at 6:00 PM for program attendees to do research beforehand. \$15.00 per person or \$50.00 for the series. 860-688-3813 or windsorhistoricalsociety.org.

Let your voice be heard - through your Vote.

If you have any questions please contact either the Democratic Registrar of Voters 860-285-1958 or the Republican Registrar of Voters 860-285-1957.

Polling Place	Location
1 L.P. Wilson Community Center	599 Matianuck Avenue
2 J.F. Kennedy School	530 Park Avenue
3 Town Hall	275 Broad Street
4 Community Center	330 Windsor Avenue
5 Oliver Ellsworth School	730 Kennedy Road
6 Poquonock School	1760 Poquonock Avenue
7 Rainbow Firehouse	750 Rainbow Road

Everyone

September 9: If you love music and want to play bells or sing in a church choir, the **First Church Bell Choir** begins its weekly rehearsal tonight from 6:30 PM to 7:30 PM and the Gallery Choir begins its weekly rehearsal from 7:30 PM to 8:30 PM. Both rehearsals are held in the Choir Room behind the church Meetinghouse. If you can make a joyous noise, you're qualified. Free. 860-688-7229.

September 9: Windsor's **Farmers Market** continues today and every Thursday through October 28th at 240 Broad Street. Shop a variety of fresh locally grown produce and specialty items from 3:30 PM to 6:30 PM. Come support CT farming! 860-683-8410 or firsttowndowntown.org.

September 9: Yoga For You! is designed to meet your personal needs while stretching and strengthening your muscles as well as helping to release stress and tension from your mind and body. Class will meet Thursday evenings from 6:00 PM to 7:00 PM at the L.P. Wilson Community Center through October 14. \$48.00. 860-285-1990. Activity number 4128.012.

September 10: The GFWC **Windsor Woman's Club Annual Mums sale** begins today and continues through tomorrow. Cost for plants is \$5.00 for one; \$15.00 for 3. We will attempt to honor any and all color choices, but we can not promise what colors will be available ahead of time. To place an order or to schedule a pick-up time, (at 441 Broad Street) call 860-688-7390 or 860-688-0706.

September 11: Kick-off to the School Year Party at Welch Park today from 10:00 AM to 3:30 PM. Enjoy fun games, crafts, music, bounce house, face painting and lots of fun for youth and families of all ages! Play ball, join in fun field contests and win prizes. There will also be lots to eat with complimentary snacks and drinks for everyone. This event is presented by the Maroon-Blue Crew, an exciting new initiative of the Windsor Youth Services Bureau and the Windsor Police Department, and if you'd like to join the Maroon-Blue Crew, you can also sign up at this event. Free. 860-285-1990 for more information.

Attention pool and outdoor hot tub owners

Now that the warmest weather is over, there are some things you should know regarding the regulations for pool wastewater discharges. Swimming pool wastewater (and there are more than 1,000 in-ground pools in Windsor and an unknown number of above ground pools and hot tubs) can contain compounds that can be toxic to aquatic life, even at low levels. Whether you drain, backwash or clean the pool, certain criteria must be met before releasing pool wastewater into the environment.

Businesses that clean, drain, or maintain private or public pools must register with the CT-DEP for a *General Permit for the Discharge of Swimming Pool Wastewater*. Owners of private residential pools do not have to register, but must comply with all conditions in the general permit. Copies are available online at dep.state.ct.us/pao/download.htm#SwimmingPoolGP.

Swimming pool wastewaters may be discharged toward a stream or wetland, or into a storm drain, provided the following conditions are met:

- The pH of the discharge shall be between 6.5 and 8.0 standard units.
- The total residual chlorine or bromine shall be non-detectable (less than 0.1 mg/l).
- The discharge shall not cause foaming or discoloration of any stream or wetland.
- No algae or sanitation control chemicals are used (other than bromine or chlorine based). Chemicals to adjust pH may also be used.
- The discharge shall not cause scouring of any stream or wetland.

Acid cleaning, pressure wash, or swimming pool filtration backwash wastewaters may not be discharged toward any stream, wetland, storm drain or catch basin. Disposal options for these materials for all discharges of power washing wastewater must be directed to either the ground surface or sanitary sewer.

All storm drains in the vicinity of the power washing operation must be obstructed in a manner which insures that no power washing wastewater reaches any storm drain or surface water body.

Ground Surface

Discharges shall occur in unpaved areas which are large enough to absorb into the soil all power washing wastewater without runoff to storm drains or surface water bodies.

Sanitary Sewer

(A) Before discharging power washing wastewater to a sanitary sewer the local sewer authority must be notified in writing

(B) Trash, sand and debris shall be removed by, wherever practical, first sweeping, shoveling, scraping or vacuuming the structure to be cleaned. All removed solids shall be properly disposed of (e.g. trash receptacle, landfill)

(C) For each day of power washing and for each location, the discharger should maintain a record containing, at a minimum, the following information for at least 5 years from the date on which a discharge occurs:

(1) The location address at which power washing was performed; (2) The main purpose of the power washing (graffiti removal, maintenance, cleaning, etc.); (3) The types of additives used; (4) The location to which the wastewater was directed (ground or sanitary sewer).

Pool owners who live in the Farmington River Watershed and the Phelps Brook Watershed should be extra cautious.

When in doubt, seek the advice of the CT-DEP, Bureau of Water Management, Permitting, Enforcement, & Remediation Division at 860-424-3018.

Enjoy the pleasures of a pool, but please be environmentally responsible.

The Windsor Inland Wetlands and Watercourses Commission

May 15: The Oliver Ellsworth Homestead opens for the 2010 season. Built in 1781, "Elmwood" is the home of Windsor's celebrated Revolutionary War Patriot, Framers of the U.S. Constitution, First CT State Senator and Third Chief Justice of the Supreme Court. The Museum is open for guided tours May 15 through October 14. Hours are from noon to 4:00 PM on Wednesdays, Thursdays and Saturdays; and from 1:00 PM to 4:00 PM on the last Sunday of the months of May through September. Special tours and events are available by appointment. Admission is \$4.00 for adults and free to children under 12 accompanied by an adult. More information may be obtained at ctdar.org/OEH/index.html or 860-688-8717.

May 15: The Windsor Kiwanis Club's 40th Annual 5K Shad Derby Road Race will be held this morning in Windsor Center. Registration begins at 8:45 AM and start time is 10:00 AM for both runners and walkers. The 5K Run and 2.5K Walk will begin and end at the intersection of Elm and Broad Streets. The first 100 Run/Walk entries receive a free t-shirt. All proceeds go toward The Windsor Kiwanis Scholarship Fund. The application form as well as the latest information concerning this year's race can be obtained on the Windsor Kiwanis web site at windsorkiwanis.org. Run fast and then enjoy the Kiwanis Club's famous fried dough on the green Shad Derby Day!

May 15: The Annual Shad Derby Parade and Festivities sponsored by the Windsor Jaycees since 1971, will take place on the Windsor Town Green. The festivities on the Green will start at 10:00 AM and conclude by 4:00 PM. These festivities include games, crafts, food and drink. If you or your group is interested in reserving a spot on the green, go to windsorjaycees.com to fill out an application and pay for your reserved spot directly on-line. The Parade will start at 12:30 PM. If you would like to inquire about parade participation please contact Joe McAuliffe at joe-liz@mcauliffefamily.org. Attending the Shad Derby (Windsor's UN-Official Homecoming) is free and a can't miss event for any Windsor resident.

May 17: The Windsor Town Council will meet tonight from 7:30 PM until adjournment in the Council Chambers at Town Hall. Free. 860-285-1800.

Summer "Green" Tips

Here are some simple things you can do to improve the environment in Windsor.

- Retire your car or at least give it a day off each week. Every gallon of gas produces 20 pounds of CO₂. Summer is a great time to walk
- Plant new trees. Each tree removes an average of 13 pounds of carbon dioxide each year and converts it to oxygen
- Buy organic food. The chemicals used in modern agriculture not only pollute the water, they require energy to produce. Some chemicals have also been linked to cancer and other health problems
- Buy local. The food is fresher and you cut down on transportation and air pollution
- Insect repellent: don't use scented colognes, shaving lotion, shampoo, or deodorant when going outdoors; use chamomile tea as a lotion; burn citronella candles or mosquito coils, install a bat house.



May 18: Diabetic Support Group meets today at the L.P. Wilson Community Center from 1:00 PM to 2:15 PM. Hear from a knowledgeable expert on diabetes and talk with others who are diabetic. Open to those with diabetes and their family members. Free. 860-285-1839.

May 18: The Loomis Chaffee School Jazz Band & Jazz Improv Group presents their **Spring Concert** from 7:00 PM to 8:00 PM in Founders Hall Chapel on the Loomis Chaffee campus. Free. 860-687-6000.

May 18: The Windsor Board of Education will meet tonight from 7:00 PM until adjournment in the Council Chambers at Town Hall. Free. 860-687-2000.

May 18: Windsor's Caregiver's Support Group meets tonight at the L.P. Wilson Community Center from 6:00 PM to 7:30 PM. Participants have the chance to share information, learn from each other and hear speakers on suggested topics. A light supper will be served. Please RSVP by May 17. Free. 860-285-1839.

May 19: The Windsor Economic Development Commission will meet today from noon until adjournment in the Ludlow Room at Town Hall. Free. 860-285-1877.

May 19: The Windsor Chamber of Commerce Business After Hours "A Night On The Town" will be hosted by the WCC Membership Committee on the Windsor Town Green from 5:30 PM to 7:30 PM. New members and prospective new members will be invited to learn more about the Chamber's activities. Representatives from Chamber Insurance Trust, SBA, SCORE and Chamber Committees will be there to answer questions.

Don't miss this opportunity to learn how the Chamber can help your business. Food and prizes will be provided by Windsor Restaurants and businesses. Existing members are also invited. Free. RSVP by calling 860-688-5165.

May 19: Computer Class / Intermediate Word training will be offered at the Windsor Public Library from 7:00 PM to 8:30 PM. Some experience with Microsoft Word is necessary. Space is limited and registration is required. Free. 860-285-1918.

May 19: The Windsor Zoning Board of Appeals will meet tonight from 7:00 PM until adjournment in the Council Chambers at Town Hall. Free. 860-285-1960.

May 20: The May Share Group meeting for Shad Run residents will be held in the Shad Run Community Room from 10:30 AM to 11:30 AM. Free. 860-285-1839.

May 20: The Windsor Republican Town Committee will meet tonight from 7:30 PM until adjournment in the Council Chambers at Town Hall. Free. 860-478-9894.

May 22: The Windsor Health Department will hold the **2010 Rabies Clinic** today from 2:00 PM to 4:00 PM at the Blue Hills Fire District Headquarters, 1021 Blue Hills Avenue in Bloomfield. Written proof (not tags) of prior vaccination for rabies must be presented to qualify for a three-year certificate. One-year certificates will be given to all others. Animals must be 3 months or older. All dogs must be on leashes and all cats must be in carriers. \$2.00 per animal, cash only. Families with Connecticut State Medical Card (Medicaid) may present the card for one free vaccination. Call the Windsor Health Department at 860-285-1824.

Watch Out for Wildlife

- Look for animals' reflective eyes, often visible at a distance
- Make sure your windshield is clean
- If you do hit an animal – pull off to the side of the road and put on your flashers. Don't approach a wounded animal, call the Windsor Police at 860-688-5273, and call the state wildlife 24-hour hotline at 860-424-3333.

Everyone

The Kiwanis Club of Windsor

Kiwanians are ordinary people who perform extraordinary "hands-on" work. Here in Windsor, as elsewhere around the world, the Kiwanis Club is a snapshot of the community: a group of caring and involved volunteers who believe that they can make a positive difference in their community. If you would like to learn how you can become involved in Windsor's Kiwanis Club, call Thomas Pompa at 688-5921.

April 13: Windsor C.A.R.E.S. (Citizens Assisting Residents Everywhere by Sharing)

meets today at the L.P. Wilson Community Center from 1:00 PM to 2:00 PM. Here's an opportunity to get involved in community service projects that benefit others such as making sandwiches for homeless people, adopting a family, preparing a meal for a shelter and more. Volunteer for as little or as much as you can. Free. 860-285-1839.

April 13: Jeff Dallesander from Home Depot will conduct a mixed basket workshop with the members of the **Windsor Woman's Club** tonight from 6:30 PM to 9:00 PM in the cafeteria at the L.P. Wilson Community Center before the club's business meeting. Refreshments will be served. Free. 360-688-0706.

April 13: The Windsor **Board of Ethics** will meet tonight from 7:00 PM until adjournment in the Dr. Primus Room at Town Hall. Free. 360-285-1800.

April 13: **Free Portrait Demonstration by Debbie Barbosa**, from 6:45 PM to 8:30 PM at the L.P. Wilson Community Center, sponsored by the Windsor Palette & Brush Club. This accomplished artist will paint a portrait in oils. Refreshments will be served. Free. 860-688-1084.

April 13: The Windsor **Public Building Commission** will meet tonight from 7:00 PM until adjournment in the Ludlow Room at Town Hall. Free. 860-285-1870.

April 13: The Windsor **Town Planning and Zoning Commission** will meet tonight from 7:00 PM to adjournment in the Council Chambers at Town Hall. Free. 860-285-1980.

April 13: The Windsor **Board of Education** will meet tonight from 7:00 PM until adjournment in the Council Chambers at Town Hall. Free. 860-478-9894.

April 14: The Windsor **Business to Business Connection** meets today from 7:30 AM to 9:00 AM at Bart's Beanery located at 55 Palisado Avenue for coffee and it's a great way to meet other local business owners. The meetings will offer opportunities for sharing information about your business as well as referrals and testimonials. Free for Chamber members, TVCC and Metro Hartford Chamber Members. 860-688-5165.

April 14: The Windsor **Human Relations Commission** will meet tonight from 7:00 PM until adjournment in the Ludlow Room at Town Hall. Free. 860-285-1984.

April 14: The Windsor **Insurance Commission** will meet tonight from 5:30 PM until adjournment in the Dr. Primus Room at Town Hall. Free. 860-285-1851.

April 15: Join in a **Drumming Circle** from 7:00 PM to 8:00 PM in the First Church Choir Room (meetinghouse). This activity includes people of all ages. The main objective is to share rhythm and get in tune with each other and yourself. Free. 860-683-2755.

April 15: The Windsor **Republican Town Committee** will meet tonight from 7:00 PM until adjournment in the Council Chambers at Town Hall. Free. 860-478-9894.

April 15: The **Windsor Chamber of Commerce Business After Hours** will be hosted by Dr. Steven Farley of Farley & Garceau from 5:30 PM to 7:00 PM. Learn about this Windsor business and tour their facility. Enjoy refreshments, a raffle and networking with other Chamber members. Free to Windsor Chamber and Metro Hartford Chamber members, \$5.00 for non-chamber members. 860-688-5165.

April 19: Today through April 23, from 9:00 AM to 4:00 PM, kids in grades 1 through 6 can experience a new adventure and have fun at Northwest Park's **Spring School Break Spring Trackers Camp**. This exciting camp will focus on science, farm and nature. Children will learn about their environment with hands-on learning through games, crafts, hikes, experiments and fun! \$145.00 (Windsor resident), \$155.00 (non-resident). 860-285-1886. Activity number 2252.046

April 19: **Extended Care** is available at Northwest Park for April Break camp this week from 7:30 AM to 9:00 AM and 4:00 PM to 5:00 PM each day. Extended morning or afternoon care for the week is \$25.00 per session (Windsor residents), \$35.00 (non-residents). 860-285-1886. Activity number (AM Care) 2252.047, Activity number (PM Care) 2252.048

April 20: **Diabetic Support Group** meets today at the L.P. Wilson Community Center from 1:00 PM to 2:15 PM. Hear from a knowledgeable expert on diabetes and talk with others who are diabetic. Open to those with diabetes and their family members. Free. 860-285-1839.

April 21: The Windsor Zoning Board of Appeals will meet today from 7:00 PM until adjournment in the Ludlow Room at Town Hall. Free. 860-285-1960.

April 23: **Earth Day Cleanup** is today and you can make a difference! Get your friends and relatives to join you and feel good about doing something for your town by volunteering. Meet behind Town Hall at 11:45 AM and we'll work in groups until 4:00 PM. Gloves and refreshments provided. 860-285-1987.

Stop worrying about your elderly parents...

Windsor's Caring Connection Adult Day Health Center may be the answer!

We have been helping families keep loved ones at home in the community for more than 20 years. The Caring Connection Adult Day Health Center is a not-for-profit, municipally operated agency that provides cost effective, quality day health services for any age adult facing physical and mental challenges including Alzheimer's, mental retardation, loneliness, depression and problems associated with aging.

The Caring Connection is for adults who need: nursing supervision, medication administration, assistance with activities of daily living, therapeutic recreation, social interaction.

The Caring Connection is for families who need: a break from the caregiver role, to go to work, to take care of other responsibilities.

The Caring Connection Adult Day Health Center
Serving Windsor and surrounding communities

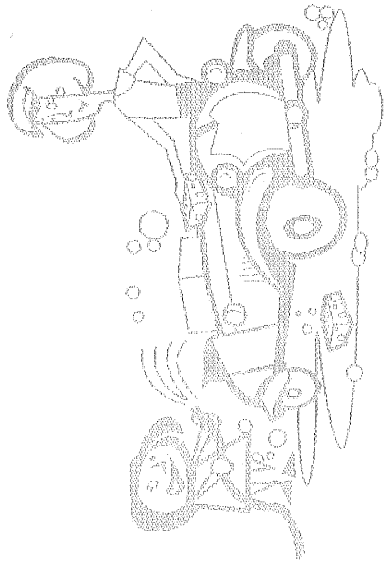
Monday - Friday 7:00 AM to 4:30 PM
(860) 547-0251

Call to schedule an appointment today.



Other Recommendations for Pollution Prevention and Water Conservation

- Before beginning your car wash, remove all trash and debris from the car washing area.
- Always shut off or kink hoses when not in use.
- Use a bucket of soapy water to re-soap rags or sponges throughout the wash rather than adding more soap directly to the rag or sponge.
- Wring rags and sponges into buckets, not onto the ground.
- Do not empty buckets of soapy water into the parking lot, street, gutter, or storm drains. Always empty buckets into the sanitary system (e.g., sinks or toilets).

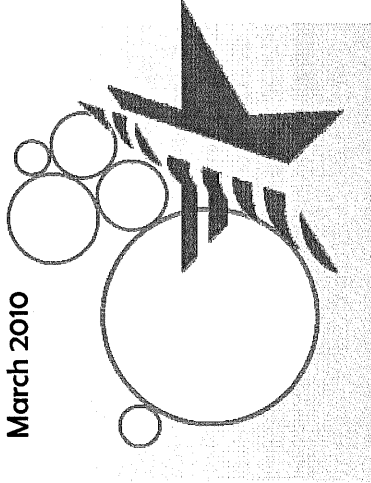


Town of Windsor

Car Wash

Fundraisers

March 2010



Town of Windsor

275 Broad Street
Windsor, CT 06095
www.townofwindsorct.com

Phone: (860) 285-1987

Fax: (860) 285-1809

E-mail: carwash@townofwindsorct.com

There's no problem with car washing, it's just how and where it is done.

During a car wash, dirty water containing soap and detergents, residues from exhaust fumes, gasoline and motor oils washes off the cars. If not directed properly, this water flows off the pavement and into nearby catch basins and storm drains.

Unlike the water we use in our homes, which is treated at wastewater treatment plants, the water that goes into storm drains flows directly into wetlands, streams, rivers, lakes, and oceans without any kind of treatment.

While a single car wash fundraiser event will create little adverse environmental impact on the environment, collectively car wash fundraiser events have the potential to contribute significant amounts of water pollution if directed to the storm drains and waterways.

To comply with federal, state, and local regulations car wash wastewater should not be directed into the storm drain system or waterways.

The following list of good housekeeping practices and ideas will help you have an environmentally successful car wash fundraising event.

Good Housekeeping Practice #1

Vehicles could be washed inside an enclosed and roofed location where the floor drain is connected to the MDC sanitary sewer. Some commercial car wash operators may be willing to sponsor and/or make their facilities available for use.

Good Housekeeping Practice #2

Wash cars in an area where water can be directed to grassy areas and can slowly filter into the ground and not run off to the storm drain. Wherever possible, select a site where the cars can be driven onto grass or gravel for washing. Alternatively, select a site where the car wash wastewater will be either directed or can be pumped to a grass, gravel, or landscaped area. If your organization is interested in learning how to do this at your location contact the Town Environmental Planner at (860) 285-1987.

Good Housekeeping Practice #3

Use only soaps, cleaners, or detergents labeled "non-toxic", "phosphate free", or "biodegradable". Avoid the use of acid-based wheel cleaners. Biodegradable soap can be purchased from the Town. Please give us advanced notice of your event.

Good Housekeeping Practice #4
Coordinate with a local commercial car wash and sell tickets to the facility. Tickets could be good for a single event or used at anytime.

Good Housekeeping Practice #5

Think about a "waterless car wash". A few environmentally friendly products have been created that do not require the use of water.

Town of Windsor

275 Broad Street

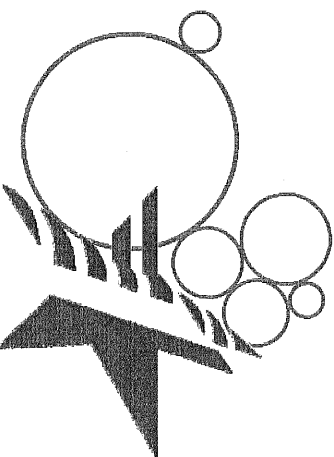
Windsor, CT 06095

www.townofwindsor.ct.com

Phone: (860) 285-1987

Fax: (860) 285-1809

E-mail: carwash@townofwindsor.ct.com



APPENDIX B

Stormwater Training Materials

Attendance Sheet
December 21, 2010

SWPPP TRAINING / SPCC TRAINING

Ray Cavalieri
Shane Gungor
Jim A. Sorani

Ron Lewis
D.J.
Mark Kease

Bene Duhon
Carl Miller
CARR MOBLEY
Jan [unclear]
[unclear]

Guy Pad
Peter O'Brien
Chris Beech

MATTHEWS Ryan
Fred [unclear]
R. Mongal
Joff

P. Nicoletti
R. White

Fred Olszewski
[unclear]
MATT [unclear]

Presentation to

Windsor Department of Public Works

ANNUAL STORMWATER TRAINING

Phase I and Phase II

December 2010



ANNUAL STORMWATER TRAINING

Victoria Houle, P.E.
Project Engineer
Town of Windsor
275 Broad Street
Windsor, CT 06095



Annual Stormwater Training

US Environmental Protection Agency

- Phase I Stormwater Program - 1990
 - *Designed to regulate discharges from municipalities with populations greater than 100,000 (Boston, Worcester, and Stamford, CT)*
 - *Construction sites greater than 5 acres*
 - *Stormwater discharges "Associated with Industrial Activities" (40 CFR 122.26)*
- Phase II Stormwater Program - 1999
 - *Targets small communities "urbanized areas"*
 - *Goal is to reduce the discharge of pollutants to the "maximum extent practicable"*
 - *Storm water plans must be in place by March 10, 2003*
 - *Plans must be fully implemented by March 10, 2008*

Phase I Stormwater Program

CT DEP "General Permit for the Discharge of Stormwater Associated with Industrial Activity"

- Standard Industrial Classification Code
- Outdoor Material Storage

Windsor:

- Public Works Facility (99 Day Hill Rd)
- Parks Garage (69 Mechanic Street)
- Windsor-Bloomfield Landfill

Stormwater Pollution Prevention Plan

Pollution Prevention Team

- Designated personnel
- Contact information in SWPPP
- Responsible for:
 - *Implementing*
 - *Maintaining*
 - *Revising the Plan*



Stormwater Pollution Prevention Plan

Pollution Prevention Team

- Public Works Facility
 - *Brian Funk*
 - *Wayne Radke*
- Parks Garage
 - *Brian Funk*
 - *Wayne Radke*



Stormwater Pollution Prevention Plan

Description of Potential Pollutant Sources

- Activities and materials at the site
- Site Map
 - *Drainage Areas - Areas on-site that discharge to a common point or along a continuous line*
- Inventory of Exposed Materials
- List of Spills and Leaks (5+ gallons)
- Monitoring Program

Stormwater Pollution Prevention Plan

Potential Pollutant Sources

- Loading/Unloading Areas
- Roof Areas
- Outdoor Storage
 - *Dumpsters*
 - *Aboveground Storage Tanks*
- Outdoor Manufacturing or Processing
- Dust or Particulates
- On-site Waste Management Practices
- Vehicle Washing/Rinsing

Stormwater Pollution Prevention Plan

Public Works Facility

- Loading/Unloading Areas
 - *Vehicle maintenance area (anti-freeze, detergents, cleaners, lubricants, waste oil, paints, mineral spirits)*
 - *Storage area (fertilizers, pesticides, cleaners, etc.)*
 - *Fueling area*
 - *Sand/Salt storage shed*
- Outdoor Storage
 - *Scrap metal, dumpster, drainage materials, solid waste*
- Outdoor Manufacturing or Processing/Dust or Particulates
 - *Salt and sand*
 - *Unpaved areas in dry weather*

Stormwater Pollution Prevention Plan

Parks Garage

- Loading/Unloading Areas
 - *Main building (gasoline, lubricants, paint, fertilizers, pesticides, heating fuels ASTs, de-icing chemicals)*
 - *Storage shed (de-icing chemicals, wood, metal)*
- Outdoor Storage
 - *Bleachers, picnic tables, topsoil, processed stone, wood chips, concrete, curbing, bricks, stone, sand*
- Outdoor Manufacturing or Processing/Dust or Particulates
 - *Screening machine*

Stormwater Pollution Prevention Plan

Pollution Prevention

- Good Housekeeping
- Sediment and Erosion Control
- Preventative Maintenance
- Spill Prevention / Response Procedures
- Employee Training
- Management of Runoff
- Inspections



Stormwater Pollution Prevention Plan

Good Housekeeping

- Promptly remove and REMEDIATE spills
- Maintain clean and dry FLOORS
- DO NOT store materials, containers, or equipment in pathways and walkways
- MINIMIZE outdoor storage/PROTECT materials
- CAPTURE WASTEWATER and prevent water from entering the stormwater system
- Properly DISPOSE of wastes
- PROHIBIT vehicle maintenance or washing outside with chemicals!!!!



Stormwater Pollution Prevention Plan

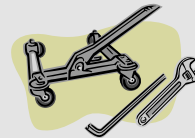
Good Housekeeping (continued)

- LIQUID wastes
 - *Store indoors*
 - *Secondary containment:*
 - *Largest chemical container or*
 - *10% of the total volume of ALL containers, whichever is LARGER*
 - *Store AWAY from floor drains and doorways*

Stormwater Pollution Prevention Plan

Preventative Maintenance

- Routine Maintenance
 - *Equipment maintenance in accordance with Manufacturer's Specifications*
 - *Stormwater drainage system*
- Visual Inspections
 - *Potential Pollutant Areas*
 - *Hazardous waste containers, ASTs, storage areas*
 - *Stormwater drainage system*
 - *E&S control measures*



Stormwater Pollution Prevention Plan

Spill Response Procedures

- Spill Prevention, Control and Countermeasure Plan
 - *Spill response procedures*
 - *Spill response equipment and supplies*
 - *Spill notification requirements*
 - *Inspections of oil storage areas*
 - *Fixed storage*
 - *Mobile Storage*
 - *Oil-in-Use*



Stormwater Pollution Prevention Plan

Spills

- DOCUMENT significant spills or leaks

“ a list of spills and leaks of five gallons or more of toxic or hazardous substances as defined in Section 22a-430-4...”

Stormwater Pollution Prevention Plan

Sediment and Erosion Control

- Topography
- Land Disturbance Areas
- Erosion Controls
 - *Structural*
 - *Vegetative*
 - *Stabilization Best Management Practices (BMPs)*

Stormwater Pollution Prevention Plan

Management of Runoff

- Used to divert, infiltrate, reuse, contain, or otherwise reduce pollutants in discharges
- Runoff management practices
- Structural controls
 - *Oil/particle separators*
 - *Infiltration/sedimentation basins*
 - *Retention/detention basins*
 - *Sumped catch basins*
 - *Grass swales*

Stormwater Pollution Prevention Plan

Plan Implementation

- Update/revise SWPPP as necessary
- Employee Training
- Monitoring
- Inspections (Bi-Annual)
- Bi-Annual Comprehensive Site Compliance Evaluation

Stormwater Pollution Prevention Plan

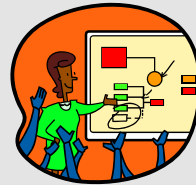
Revisions to the SWPPP

- There is a change at the site which has an effect on the potential to cause pollution of the waters of the state
- The actions required by the Plan fail to ensure or adequately protect against pollution of the waters of the state
- The commissioner requests modifications of the Plan

Stormwater Pollution Prevention Plan

Employee Training

- All employees whose activities could impact the quality of stormwater runoff from the site
- Annual training
- Include objectives of the General Permit and the SWPPP
 - *Oil handling and spill response procedures*
 - *Good housekeeping practices*
 - *Stormwater system maintenance*
 - *Inspection and monitoring requirements*



Stormwater Pollution Prevention Plan

Monitoring

- Annual stormwater monitoring
 - *Total oil and grease*
 - *pH*
 - *Chemical Oxygen Demand*
 - *Total Suspended Solids*
 - *Total Phosphorus*
 - *Total Kjeldahl Nitrogen*
 - *Total Copper*
 - *Total Zinc*
 - *Total Lead*
 - *Aquatic Toxicity*
- Submit results in a Discharge Monitoring Report (DMR) to the DEP
- Representative outfalls
 - *Public Works Facility (2 outfalls)*
 - *Parks Garage (1 outfall)*

Stormwater Pollution Prevention Plan

How to sample

- Rainfall event > 0.1 inch
- Rainfall event occurs at least 72 hours AFTER previous rainfall event greater than 0.1 inch



Stormwater Pollution Prevention Plan

How to Sample (continued)

- Wear latex gloves
- Place an open container outside to collect rainwater and measure rain pH
- Collect stormwater runoff grab sample
 - *Within 30 minutes of start of runoff*****
- Completely fill containers
 - *Holding underneath outfall or using a clean scoop*
 - *Collect a sample free of sediment*

Stormwater Pollution Prevention Plan

How to Sample (continued)

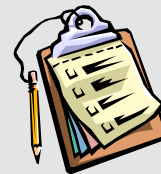
- Write the sampler name, sample number, sample location, date, and time on sample containers
- PLACE SAMPLES IN COOLER with ice or ice packs such that the sample temperature remains between 32°F and 40°F
- Complete a Chain-of-Custody for samples being submitted for laboratory analysis
- Samples MUST be analyzed within 7 days*



Stormwater Pollution Prevention Plan

Bi-Annual Comprehensive Site Compliance Evaluation

- Confirm the accuracy of potential pollution sources
- Determine the effectiveness of the Plan
- Assess compliance with terms and conditions of the General Permit
- Maintain record for at least five years



Stormwater Pollution Prevention Plan

Bi-Annual Comprehensive Site Compliance Evaluation

Public Works Facility

- **Garage Area**
 - *Chemical Storage/Use Area*
 - *Potential Discharge Outside*
- **Storage Shed**
 - *Look for Sediment Run-off*
 - *Look for Sand/Salt Run-off*
 - *Make sure inactive piles are covered*
- **Fueling Area**
 - *Check area and hose connections for evidence of leaks*
- **Emergency Generator Tank**
 - *Check area and hose connections for evidence of leaks*
- **Catch Basins**
 - *Should be clean and free of debris*
- **Stormwater Outfalls**
- **General Yard Cleanliness**
- **Evidence of Leaks or Spills**

Stormwater Pollution Prevention Plan

Bi-Annual Comprehensive Site Compliance Evaluation

Parks Garage

- **Garage Area**
 - *Chemical Storage/Use Area*
 - *Potential Discharge Outside*
- **Storage Shed**
 - *Look for Sediment Run-off*
- **Stockpiles**
 - *Look for Sediment Run-off*
- **Erosion Controls**
 - *Silt Fence/Hay Bales*
 - *Needed in Other Areas*
- **Stormwater Outfall**
- **General Yard Cleanliness**
- **Evidence of Leaks or Spills**

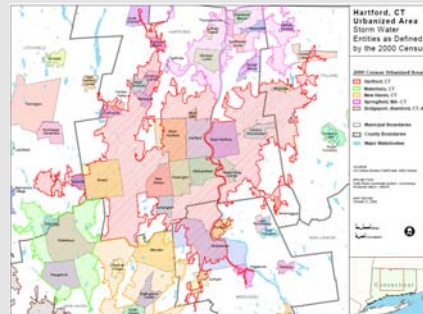
Phase I Stormwater Program

QUESTIONS?



Phase II Stormwater Program

- EPA has identified approximately 105 Connecticut Communities for Phase II Permitting
- Municipal Separate Storm Sewer Systems (MS4) in “Urbanized Areas” (based on 2000 Census)



Phase II Stormwater Program

What does Phase II require?

- Each community must develop and implement a stormwater management plan
- The stormwater management plan includes six (6) minimum control measures:
 - *Public Education and Outreach*
 - *Public Involvement/Participation*
 - *Illicit Discharge Detection and Elimination (regulated area only)*
 - *Construction Site Runoff Control*
 - *Post-Construction Runoff Control*
 - *Pollution Prevention / Good Housekeeping for Municipal Operations*

Phase II Stormwater Program

Public Education & Outreach

- Requires a program to educate the public about stormwater quality and pollution prevention
- Take advantage of existing community meetings, school programs, environmental organizations, and citizen's groups
- Priority subwatersheds/regulated areas should be targeted
- Certain sources of pollution should be targeted
- Coordinate with local and state agencies
- Organize a local committee



Phase II Stormwater Program

Public Education & Outreach in Windsor

- Catch Basin Markers stating “Drains to Waterways and the Long Island Sound” have been installed on more than 635 catch basins
- Stormwater page on the Town’s website
- Earth Day events
- Articles in the *Hartford Courant*, *Windsor Journal*, *Reminder News*, and *There’s a lot to do in Windsor*
- School programs –
 - *Recycling lessons given at Sage Park Middle School and Oliver Ellsworth Elementary School*
 - *Loomis Chaffee study on waste reduction and recycling*
- Northwest Park - environmental education classes, programs, and special events



Phase II Stormwater Program

Public Participation / Involvement

- Encourage public participation in pollution prevention tasks to improve program success
- A number of community resources are available that can help with program implementation
 - *Scouting*
 - *Citizen’s groups*
 - *Environmental groups*
- Form a local committee to organize, oversee, and complete program tasks
 - *Adopt a stream*
 - *Volunteer water quality monitoring*
 - *Storm drain stenciling*
 - *Community river cleanups*
 - *Inventory Outfalls*



Phase II Stormwater Program

Public Participation / Involvement in Windsor

- Community clean-ups (100 volunteers this year!)
 - April 2010 – 3 tons of trash collected
 - October 2010 – 600 pounds of trash collected
- School Programs
 - Recycling programs
 - Earth Day Celebrations
 - Science fairs
- Stormwater Management Committee
- Publication of annual reports on the Town's website



Phase II Stormwater Program

Illicit Discharge Detection and Elimination

- An illicit discharge is any non-stormwater discharge to an MS4, *with some exceptions*
- Examples of illicit discharges:
 - Sanitary wastewater
 - Car wash wastewater
 - Improper car fluid disposal
 - Improper disposal of household toxics
- Develop a storm sewer map
- Adopt an ordinance/regulation banning illicit discharges
- Implement a plan to identify and remove illicit discharges



Phase II Stormwater Program

Illicit Discharge Detection and Elimination in Windsor

- Outfall Mapping
 - *All stormwater outfalls of 12" or greater*
 - *Includes type, material and size of conveyance*
 - *Name of watershed in which the discharge is located*
- Illicit Discharges and Connections Ordinance adopted in April 2009



Phase II Stormwater Program

Construction Site Runoff Control

- Existing municipal regulations may need modifications
- Requirements for contractors to control construction materials that may cause adverse impacts to water quality
- Procedures for site plan review which incorporates consideration of potential water quality impacts
- Procedures for receipt and consideration of information submitted by the public
- Procedures for site inspection and enforcement of control measures

Phase II Stormwater Program

Construction Site Runoff Control in Windsor

- Erosion and Sediment Control Ordinance adopted in January 2009
- Regulates land disturbing activities of greater than 0.5-acre
 - *Single family residential uses are exempt in most cases*
- Requires an Erosion & Sediment Control Permit
 - *Engineering received 8 applications in 2010*



Phase II Stormwater Program

Post-Construction Runoff Control

- Existing regulations may need modifications to address:
 - *Performance standards*
 - *Maintenance requirements*
 - *Enforcement*
- Develop and implement stormwater BMPs
- Ensure long-term operation and maintenance BMPs

Phase II Stormwater Program

Post-Construction Runoff Control in Windsor

- Stormwater Management Ordinance adopted in January 2009
- Regulates land disturbing activities:
 - *Sites creating greater than 5,000 SF of impervious area*
 - *Land disturbing activities of greater than 1.0-acre*
 - *Single family residential uses are exempt in most cases*
- Requires a Stormwater Management Permit
 - *Engineering received 8 applications in 2010*
 - *Requires an Inspection & Maintenance Agreement on Land Records*
 - *Requires "as-built" drawings*



Phase II Stormwater Program

Pollution Prevention / Good Housekeeping

- Develop and implement a municipal operation and maintenance program for the storm sewer system and municipal facilities such as DPW yards, schools, and recreation facilities
- Programs developed or modified to address
 - *Catch basin maintenance*
 - *Street sweeping*
 - *Spill prevention and response guidelines*
 - *Record keeping*
- Implement an employee training program



Phase II Stormwater Program

Pollution Prevention / Good Housekeeping in Windsor

- Employee training
- Annual street sweeping
- Catch Basin Cleaning
- Preventative maintenance of town vehicles and equipment



Phase II Stormwater Program

Stormwater Quality Testing

- 800 Marshall Phelps Road (Industrial)
- 615 Day Hill Road (Industrial)
- 1075 Kennedy Road (Commercial)
- 555 Day Hill Road (Commercial)
- 124/128 Harvest Lane (Residential)
- 21-27 Philip Henry Circle (Residential)

Phase II Stormwater Program

Annual Report

- Due by Jan 1st of each year
- Information that must be included:
 - *Self assessment review of compliance with permit conditions*
 - *Assessment of the appropriateness of the selected BMPs*
 - *Assessment of the progress toward achieving the measurable goals*
 - *Summary of results of any information that has been collected and analyzed*
 - *Discussion of activities for the next reporting cycle*
 - *Changes in identified BMPs or measurable goals*

Phase II Stormwater Program

QUESTIONS?



Presentation to

Windsor Department of Public Works

Spill Prevention Control & Countermeasures Plan Annual Training

Environmental Protection Agency (EPA)
Title 40, Code of Federal Regulations, Part 112
(40 CFR 112)

December 2010

Spill Prevention Control & Countermeasures Plan

The intent of the REGULATIONS is to protect the environment



Spill Prevention Control & Countermeasures Plan

Non-transportation related facility is subject to the SPCC regulations if:

Aggregate aboveground capacity > 1,320 gallons (excluding bulk storage containers/oil filled equipment < 55 gallons)



Spill Prevention Control & Countermeasures Plan

If the facility could reasonably be EXPECTED TO DISCHARGE OIL into or upon the navigable waters or adjoining shorelines of the United States



Spill Prevention Control & Countermeasures Plan

Know Your
EMERGENCY CONTACT LIST

EMERGENCY PERSONNEL

Primary Coordinator

- Brian Funk

Alternate Coordinator

- Wayne Radke

Emergency Cleanup Contractors

- *United Industrial Services*



EPA



Spill Prevention Control & Countermeasures Plan

- CTDEP – Oil & Chemical Emergency Response
- National Response Center
- Environmental Protection Agency (Emergency)
- Environmental Protection Agency (Region I)
- State Emergency Response Commission (SERC)
- CT State Police
- Local Emergency Planning Commission (LEPC)
- Fire, Police, EMS - 911



Spill Prevention Control & Countermeasures Plan

OIL STORAGE can include

- No. 2 Heating Oil Aboveground Storage Tank (AST)
- Diesel and Gasoline Fuel AST
- Used Oil Drum
- Maintenance Garage: Vehicle Fluids
- Oil/Water Separator
- Fryolator at McDonalds



Spill Prevention Control & Countermeasures Plan

OIL IN USE EQUIPMENT can include

- Transformers
- Hydraulic Lifts
- Any equipment that is used onsite that is not DOT registered



Spill Prevention Control & Countermeasures Plan

TRANSFER OPERATIONS

- Strictly SUPERVISE product transfer from delivery trucks
- Delivery and pick-up vendors:
 - Must COMPLY with Department of Transportation (DOT) requirements
 - *Site personnel involved with loading operations*
 - *Also trained to comply with DOT*
- LOCK tank fill pipes when not in use



Spill Prevention Control & Countermeasures Plan

TRANSFER OPERATIONS

- Instruct delivery truck drivers to COORDINATE with facility personnel before transferring oil products
- Take care to PREVENT accidental spillage
- Maintain spill response materials
- COVER nearby downgradient catch basins
- ALERT vehicles entering the facility, as appropriate: loading/unloading operation



Spill Prevention Control & Countermeasures Plan

SITE SECURITY

- ON-SITE PRESENCE of facility personnel
- DOORS locked during non-working hours
- Building maintains fire and security alarms
- Nighttime security lighting



Spill Prevention Control & Countermeasures Plan

SPILL RESPONSE

- Discovering personnel:
- Determine source
- Attempt, without risk of injury, to stop the discharge by closing valves, etc.
- Use on-site spill response equipment
- Stop pedestrian and vehicular traffic
- Contact Emergency Coordinators



Spill Prevention Control & Countermeasures Plan

SPILL RESPONSE (continued)

- Emergency Coordinators
- ASSESS the discharge
- Determine if the secondary containment system is ADEQUATE
- Determine and initiate COURSE OF ACTION



Spill Prevention Control & Countermeasures Plan

INCIDENTAL

- MANAGEABLE by facility personnel with on-site spill response resources
- IMMEDIATELY absorbed or otherwise controlled at the time of the release
- Emergency Coordinator
- Instruct facility personnel to respond to the discharge



Spill Prevention Control & Countermeasures Plan

NON-INCIDENTAL

- Emergency Coordinators
 - *CONTACT Emergency Spill Response Contractor*



EPA



Spill Prevention Control & Countermeasures Plan

- DISPOSE spill response related waste
 - (e.g., absorbents, personal protective equipment)
 - In accordance with State and Federal laws



Spill Prevention Control & Countermeasures Plan

SPILL RESPONSE EQUIPMENT

- Absorbents (Speedy-Dri, Sand)
- Fire Extinguishers
- Brooms
- Personal Protective Equipment



Spill Prevention Control & Countermeasures Plan

SPILL NOTIFICATION AND REPORTING

- Emergency Coordinators
- Notify CTDEP:
 - *ANY outdoor spill or indoor spill that may release to the environment (soil, surface water, or groundwater)*
 - *Regardless of quantity*
 - *Also, poses a potential threat to human health or the environment*



Spill Prevention Control & Countermeasures Plan



STATE OF CONNECTICUT
DEPARTMENT OF
ENVIRONMENTAL PROTECTION
79 Elm Street
Hartford, Connecticut 06106-5127

Bureau of Waste Management
Oil and Chemical Spill Response Division

REPORT OF PETROLEUM OR CHEMICAL PRODUCT DISCHARGE, SPILLAGE OR RELEASE

1. When did the incident occur? date ____/____/____ time ____:____
month / day / year

2. Where did the incident occur? _____



Spill Prevention Control & Countermeasures Plan

National Response Center (NRC)

- Discharges of oil to waters of the US
- Cause a film, sheen, deposition or violate applicable water quality standards

EPA

- 1,000 gallons of oil
 - Navigable waters
 - Single spill event
- 42 gallons of oil
 - Two spill events
 - Within twelve-month period



Spill Prevention Control & Countermeasures Plan

After contacting NRC or EPA:
Submit written report
Within sixty days
To EPA and CTDEP



Spill Prevention Control & Countermeasures Plan

REVIEW SPCC PLAN

- Once every five (5) years
- Assessment of new technology
- Amended within six months
- Document



Spill Prevention Control & Countermeasures Plan

Should the EPA require an amendment to the SPCC Plan:

- EPA will notify the facility
- Within 30 days, FACILITY MAY SUBMIT written information, views, and arguments on the proposed amendment
- After consideration, EPA WILL NOTIFY the facility that an amendment is required or will rescind the notice



Spill Prevention Control & Countermeasures Plan

Should the EPA require an amendment to the SPCC Plan (continued):

- Facility must:
 - *IMPLEMENT* amendment as soon as possible but not later than six months
 - *DOCUMENT* the EPA proposed amendment within 30 days in SPCC Plan



Spill Prevention Control & Countermeasures Plan

CHANGE TO FACILITY

- Design, construction, operations, or maintenance
- Materially affects potential for oil discharge
- Facility must amend SPCC Plan
 - *Within six months*
- Facility must implement the amendment as soon as possible
 - *Not later than six months*



Spill Prevention Control & Countermeasures Plan

TRAINING

- Personnel involved in oil handling activities
- Proper operation and maintenance of equipment to prevent discharge of oil
- On-the-job training and an annual review of SPCC Plan
- General facility activity, oil storage and transfer, emergency response equipment, and emergency response procedures



Spill Prevention Control & Countermeasures Plan

TRAINING (continued)

- Discharge prevention briefings
- Once per year
- Understanding of SPCC Plan
- Highlight past discharges or failures, malfunctioning components, and developed precautionary measures
- Attendance records



Spill Prevention Control & Countermeasures Plan

INSPECTIONS

- Emergency Response Coordinator / other designated personnel
- Monthly inspections - oil storage areas / spill response equipment
- Seams, gaskets, piping, pumps, valves, rivets, and bolts
- Leaks, deterioration, and damage



Spill Prevention Control & Countermeasures Plan

INSPECTIONS (continued)

- Completed on a regular basis during normal facility operations
- Informal visual inspections -- filling of storage tanks.
- Signed by the inspector
- Maintained on file for three years
- Signed by the appropriate supervisor



Spill Prevention Control & Countermeasures Plan

INTEGRITY TESTING

Aboveground bulk storage containers

- According to Industry Standards
 - *STI SPOO1 (less than 5,000 gallons)*
- Visual inspections on a regular basis
- When material repairs are made



Spill Prevention Control & Countermeasures Plan

INTEGRITY TESTING (continued)

Oil In Use

- NOT SUBJECT to the integrity testing requirements
- Containers that do not store oil, but merely use oil
- e.g., oil-filled electrical equipment, operating equipment such as hydraulic equipment with oil reservoirs, off-road equipment and vehicles



Spill Prevention Control & Countermeasures Plan

INTEGRITY TESTING (continued)

- Combine visual inspection with another technique:
- Hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other system of non-destructive shell testing following industry standards
- Maintain documentation of integrity testing



Spill Prevention Control & Countermeasures Plan

OIL PIPING

- Periodic testing (e.g., pressure testing)
- “As needed” basis
- Buried oil piping
 - *Integrity and leak testing*
 - *At the time of installation, modification, construction, relocation, or replacement*



Spill Prevention Control & Countermeasures Plan

RECORD KEEPING

- Inspection and test records
- Signed by the inspector and/or tester
- Maintained on file for a minimum of three years



Spill Prevention Control & Countermeasures Plan

QUESTIONS?



APPENDIX C

2010 Stormwater Monitoring Reports



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Windsor

Mailing Address: 275 Broad Street, Windsor, CT 06095

Contact Person: Cyd Groff Title: Environmental Planner Phone: 860-285-1987

Permit Registration #GSM 200401195

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#1 – 1075 Kennedy Rd.

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Farmington River

Time of Start of Discharge: Approximately 9am

Date/Time Collected: 8/5/010 8:35 am Water Temperature: 23.6 degC

Person Collecting Sample: Delores St. Louis, TurnKey Compliance Solutions

Storm Magnitude (inches): 0.33 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 7/24/010

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.08 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	16.4 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	106 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	90 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	5.14 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	17 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.25 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	1.5 mg/l	Phoenix Environmental Labs
TKN	E 351.1	3.1 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	1.7 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	>24200 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature: Date: 12/20/10



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Windsor

Mailing Address: 275 Broad Street, Windsor, CT 06095

Contact Person: Cyd Groff Title: Environmental Planner Phone: 860-285-1987

Permit Registration #GSM 200401195

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____

#2 - 124/128 Harvest Lane

Please circle the appropriate area description: Industrial, Commercial, or **Residential**

Receiving Water (name, basin): Farmington River

Date/Time Collected: 08/05/010 913 am Water Temperature: 22.2degC

Person Collecting Sample: Delores St.Louis, TurnKey Compliance Solutions

Storm Magnitude (inches): 0.33 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 7/24/010

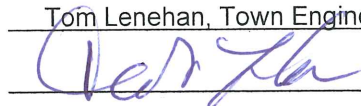
MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	7 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	18.3 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	87 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	74 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	3.73 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	<5.0 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.25 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	2.1 mg/l	Phoenix Environmental Labs
TKN	E 351.1	7.4 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.69 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	910 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature:  Date: 8/2/10



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#3 - 615 Day Hill Rd

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Date/Time Collected: 08/05/010 932 am Water Temperature: 20.8degC

Person Collecting Sample: Delores St.Louis, TurnKey Compliance Solutions

Storm Magnitude (inches): 0.33 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 7/24/010

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.71 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	18.0 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	129 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	90 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	18.1 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	10 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.27 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	1.2 mg/l	Phoenix Environmental Labs
TKN	E 351.1	2.7 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	1.9 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	710 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.	
Authorized Official:	<u>Tom Lenahan, Town Engineer</u>
Signature:	<u></u> Date: <u>08/05/10</u>



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#4 – 555 Day Hill Rd.

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Date/Time Collected: 08/05/010 am Water Temperature: 26.0degC

Person Collecting Sample: Delores St.Louis, TurnKey Compliance Solutions

Storm Magnitude (inches): 0.33 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 5/30/09

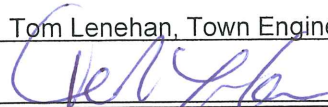
MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.93 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	21.3 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	82 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	42 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	3.48 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	<5.0 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.26 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.28 mg/l	Phoenix Environmental Labs
TKN	E 351.1	1.4 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.28 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	680 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature:  Date: 12/26/10



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#5 – 800 Marshall Phelps

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Date/Time Collected: 08/05/010 953 am Water Temperature: 25.5degC

Person Collecting Sample: Delores St.Louis, TurnKey Compliance Solutions

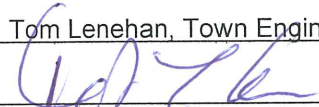
Storm Magnitude (inches): 0.33 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 7/24/010

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	3.57 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	7.2 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	85 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	220 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	8.13 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	34 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.27 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	1 mg/l	Phoenix Environmental Labs
TKN	E 351.1	3.3 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.57 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	10 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.	
Authorized Official:	<u>Tom Lenehan, Town Engineer</u>
Signature:	<u></u> Date: <u>12/16/10</u>



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): <u>#6 - 21/27 Philip Henry Circle</u>
Please circle the appropriate area description: Industrial, Commercial, or Residential
Receiving Water (name, basin): <u>Decker's Brook/Connecticut River</u>

Date/Time Collected: 08/05/010 1050 am Water Temperature: 23degC
 Person Collecting Sample: Delores St.Louis, TurnKey Compliance Solutions
 Storm Magnitude (inches): 0.33 inches Storm Duration (hours): 3 hrs
 Date of Previous Storm Event: 08/05/010

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.66 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	36.1 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	174 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	44 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	10.5 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	21 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.28 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.43 mg/l	Phoenix Environmental Labs
TKN	E 351.1	1.5 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.82 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	>24200 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.	
Authorized Official: <u>Tom Lenehan, Town Engineer</u>	
Signature:	Date: <u>12/20/10</u>